

What is claimed is:

1. A silencer for a vacuum cleaner, which comprises at least one hermetic expansion chamber (1) mounted in an exhaust channel of the vacuum cleaner and allowing an exhaust airflow from the vacuum cleaner to pass through, the expansion chamber (1) at its two sides having an inlet and an outlet connected to the exhaust channel, and the cross-sectional area of the expansion chamber (1) in the direction perpendicular to the airflow is larger than that of each of the inlet (2) and the outlet (3).
2. A silencer for a vacuum cleaner according to Claim 1 wherein a silencing board (4) is mounted in the expansion chamber (1), separating the inlet (2) from the outlet (3), with a plurality of pores (5) distributed throughout in the silencing board (4).
3. A silencer for a vacuum cleaner according to Claims 1 or 2 wherein the expansion chamber (1) is formed by two halves that are oppositely conjoined to each other at a joint, and the silencing board is fixed at the joint.
4. A silencer for a vacuum cleaner according to Claims 1 or 2 wherein the distances from two inner end faces of the expansion chamber (1), which contain the inlet (2) and the outlet (3) respectively, to the silencing board (4) are both longer than 10 mm and shorter than 100 mm.
5. A silencer for a vacuum cleaner according to Claim 1 wherein the cross-sectional area of the expansion chamber (1) in the direction perpendicular to the airflow is larger than double of that of the outlet (3).
6. A silencer for a vacuum cleaner according to Claim 1 wherein a noise-absorbing material is attached to inner walls of the expansion chamber (1).
7. A silencer for a vacuum cleaner according to Claim 1 wherein a plurality of apertures (7) are drilled around the circumference of each of the inlet (2) and the outlet (3).
8. A silencer for a vacuum cleaner according to Claim 1 wherein the cross-sectional areas of the inlet (2) and the outlet (3) in the direction perpendicular to the airflow are both less than 5000 mm².